

CLAIMS

- [001] A gas heating device comprising a gas burner (35), a combustion chamber (42) for the flames of the gas burner (35) and a convection air conduit (27) provided with an air outlet (17, 19) for evacuating a convection air stream (I) that has been heated in the gas heating device, characterised in that the combustion chamber (42) of the gas burner (35) is in fluid-dynamic communication with the convection air conduit (27) for mixing an exhaust gas stream (A) with the convection air stream (I).
- [002] The gas heating device according to claim 1, characterised in that the gas burner (35) is located inside the convection air conduit (27).
- [003] The gas heating device according to claim 1 or claim 2, characterised in that the convection air conduit (27) is divided into a first air duct (45) and a second air duct (47) at least in sections.
- [004] The gas heating device according to claim 3, characterised in that the gas burner (35) faces the first air duct (45).
- [005] The gas heating device according to claim 3 or claim 4, characterised in that the second air duct (47) is located behind the gas burner (35).
- [006] The gas heating device according to any one of claims 3 to 5, characterised in that a control element (21) is located in the second air duct (47).
- [007] The gas heating device according to any one of the preceding claims, characterised in that at least one swirling element (41) is arranged in the air duct (27) which adjusts a residence time of secondary air (II) in the area of the gas burner (35).
- [008] The gas heating device according to claim 7, characterised in that the swirling element (41) surrounds the gas burner (35) in a funnel shape.

- [009] The gas heating device according to any one of the preceding claims, characterised in that the convection air conduit (27) is arranged substantially perpendicularly in the gas heating device.
- [010] The gas heating device according to any one of the preceding claims, characterised in that the gas burner (35) comprises a burner plate (11) provided with a plurality of flame outlet openings (13).
- [011] The gas heating device according to any one of the preceding claims, characterised in that the convection air conduit (27) is at least partly defined by a heat-resistant, radiation-transmitting element (51).
- [012] The gas heating device according to claim 11, characterised in that the radiation-transmitting element (51) is a glass or glass ceramic disk (51).
- [013] The gas heating device according to claim 12, characterised in that the radiation-transmitting element (51) is located in a direction of thermal emission of the gas burner (35).
- [014] The gas heating device according to any one of the preceding claims, characterised in that at least one flow guiding element (49) is provided in the convection air conduit (27) which protects heat-sensitive locations (3, 21) of the gas heating device from the convection air stream (I).
- [015] The gas heating device according to any one of the preceding claims, characterised in that the gas heating device comprises an installation compartment (25) for a gas bottle (29).
- [016] The gas heating device according to any one of the preceding claims, characterised in that the gas heating device is constructed with rollers (5), in particular at the bottom.

- [017] The gas heating device according to any one of the preceding claims, characterised in that the gas heating device comprises a housing (1) provided with a hood-like front housing portion (3).
- [018] The gas heating device according to claim 17, characterised in that the front housing portion (3) at least partly defines the convection air conduit (27).
- [019] The gas heating device according to any one of claims 17 or 18, characterised in that the air outlet and/or air inlet (17, 19, 33) are provided in the front housing portion (3).
- [020] The gas heating device according to any one of claims 17 to 19, characterised in that a window-like recess (7) is provided in the front housing portion (3) in the direction of thermal radiation of the gas burner.
- [021] The gas heating device according to claim 20, characterised in that the radiation window (7) of the front housing portion (3) is closed by means of a radiation-transmitting disk (51).
- [022] The gas heating device according to any one of claims 17 to 21, characterised in that at least one flow and/or swirling element (41, 49) is arranged on the front housing portion (3).
- [023] The gas heating device according to any one of the preceding claims, characterised in that the convection air conduit (27) is embodied as shaft-like in the gas heating device.
- [024] The gas heating device according to claim 23, characterised in that the convection air conduit (27) is provided between a dividing wall (23) and the housing front portion (3).
- [025] The gas heating device according to any one of the preceding claims, characterised in that the air outlet (17, 19) is at least partly provided on the gas heating device at the top.

- [026] The gas heating device according to any one of the preceding claims, characterised in that a flow element (41) is provided between the gas burner (35) and the air outlet (17, 19) which protects the gas burner (35) from incoming water.